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# How to Calculate Quarterly Earnings & Apportionment

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Following are three examples of how the apportionment of quarterly earnings is computed, based on 6/30/96 quarter-ending portfolio information.

The first example simply equates the information to a mathematical formula used to compute the earning rate for the entire pool. The formula is a true yield annualized calculation, which is also adjusted to reflect leap year, when necessary.

The second example, using the information derived from the portfolio and verified by calculation, breaks the numbers down to a LAIF percentage participation. As of 6/30/96, the LAIF balance represented 38.56432654% of the total pool.

The third example carries the breakdown further to reflect the individual participation, earnings, and apportionment of a single account in the LAIF. The process of determining the weighted deposits, as well as the final dollars credited, is outlined and adjusted to reflect any appropriate charges.

## QUARTERLY EARNINGS & APPORTIONMENT

(POOL)

D = Number of days in the quarter

E = Interest income  $\pm$  sales gain/loss

B = Average quarterly book total

R = Quarterly earnings rate

Quarterly earnings calculation

$$[E/D \times *365]/B = R \quad (*366 \text{ in a leap year})$$

For example purposes, figures for quarter ending 6/30/96 will be used throughout as follows:

$$D = 91$$

$$E = 383,440,553.06 + 170,705.67 = 383,611,258.73$$

$$B = 27,903,592,062.85$$

$$R = 5.529310$$

or stated as a formula:

$$[383,611,258.73/91 \times 366]/27,903,592,062.85 = 5.529310$$

\* Actual Apportionment Rate is figured after charges have been subtracted. The subtraction of charges results in the 5.518751% apportionment rate reported 6/30/96 for LAIF.

**QUARTERLY EARNINGS & APPORTIONMENT**

**(LAIF)**

Dollar days of pool = Book value x # of days in the quarter

$$27,903,592,062.85 \times 91 = 2,539,226,877,719.08$$

2,539,226,877,719.08 dollar days = 100% of pool

LAIF is 38.56432654% of the pool = 979,235,744,667.88 dollar days

D = 1 (Since the book value has been converted to 1 dollar day)

E = 38.56432654% x 383,611,258.73 = 147,937,098.46 (Less charges)

B = 979,235,744,667.88 (1 Dollar day)

R = 5.529310 (Less charges)

or stated as a formula:

$$[E/D \times 366]/B = R$$

$$[147,937,098.46 \times 366]/979,235,744,667.88 = 5.529310$$

(Less charges)

**QUARTERLY EARNINGS & APPORTIONMENT****(LAIF/PARTICIPANT)**

AGENCY: ABC Sanitation District

Beginning Balance: 3,575,000

	<u>Transaction Amount</u>	<u>Balance</u>
04/09/96	-377,000	3,198,000
04/28/96	+1,425,000	4,623,000
05/02/96	+377,000	5,000,000
06/02/96	-75,000	4,925,000
06/19/96	+75,000	5,000,000

Ending Balance: 5,000,000

04/01/96 - 04/09/96	8 Days x 3,575,000 =	28,600,000	Dollar day
04/09/96 - 04/28/96	19 Days x 3,198,000 =	60,762,000	Dollar day
04/28/96 - 05/02/96	4 Days x 4,623,000 =	18,492,000	Dollar day
05/02/96 - 06/02/96	31 Days x 5,000,000 =	155,000,000	Dollar day
06/02/96 - 06/19/96	17 Days x 4,925,000 =	83,725,000	Dollar day
06/19/96 - 06/30/96 inc.	<u>12 Days</u> x 5,000,000 =	<u>60,000,000</u>	Dollar day
	91 Days	406,579,000	Dollar day (Total)

406,579,000 Total dollar day  
x 0.00015078554349553 6/30/96 earnings ratio (on quarterly interest statement)  
61,306.24 Apportioned earnings

OR

$$D = 1$$

$$E = .0004152003 \times 147,937,098.46 \text{ (\% of LAIF x LAIF earnings)} = 61,423.53 \text{ (Less charges)}$$

$$B = 406,579,000 \text{ (1 Dollar day)}$$

$$R = 5.529310 \text{ (Less charges)}$$

$$[61,423.53/1 \times 366]/406,579,000 = 5.529310 \text{ (Less charges)}$$

### LAIF CHARGES

Total charges for LAIF for the quarter were 282,497.00.

ABC Sanitation District is .04152003% of LAIF.

ABC Sanitation District =  $.0004152003 \times 282,497.00 = \$117.29$  share of charges.

Apportionment will reflect this charge.

ABC Sanitation District computed earnings =	61,423.53
Less share of charges =	<u>-117.29</u>
Apportioned earnings =	61,306.24

Computed earning rate	5.529310
Less 117.29 charges	
Actual earning rate	5.51875129